

CLAIMS

What is claimed is:

1 1. In a controllee electronic apparatus, a method of operation comprising:
2 providing a remote control with a first collection of user interface displays for
3 controlling the controllee electronic apparatus;
4 receiving first control commands from said remote control, resulting from
5 said provided first collection of user interface displays being used by a user of said
6 remote control; and
7 controlling operation of said controllee electronic apparatus in accordance
8 with said received first control commands.

1 2. The method of claim 1, wherein said providing to a remote control with a
2 first collection of user interface displays for controlling the controllee electronic
3 apparatus comprises providing the remote control with a first collection of user
4 interface displays having a plurality of display states and associated display state
5 transition rules.

1 3. The method of claim 1, wherein said providing to a remote control with a
2 first collection of user interface displays for controlling the controllee electronic
3 apparatus comprises providing the remote control with a first collection of user
4 interface displays having a plurality of display cells.

1 4. The method of claim 1, wherein said providing to a remote control with a
2 first collection of user interface displays for controlling the controlllee electronic
3 apparatus comprises providing the remote control with the first collection of user
4 interface displays through a selected one of a wireless optical connection in
5 accordance with a wireless optical communication protocol, a wireless electro-
6 magnetic connection in accordance with a wireless communication protocol, and a
7 wired electrical connection in accordance with a wired communication protocol.

1 5. The method of claim 4, wherein the first collection of user interface displays
2 is provided to the remote control through an infrared based optical connection,
3 using an IrDA standard based wireless optical communication protocol.

1 6. The method of claim 4, wherein the first collection of user interface displays
2 is provided to the remote control through a wireless electro-magnetic
3 communication connection, using a selected one of a Bluetooth and an IEEE
4 802.11 standard based wireless communication protocol.

1 7. The method of claim 4, wherein the first collection of user interface displays
2 is provided to the remote control through a wired electrical connection that is a
3 selected one of a serial connection, a parallel connection, a USB connection, and
4 a IEEE 1394 based connection, using a message based communication protocol.

1 8. The method of claim 1, wherein said receiving of first control commands
2 from the remote control comprises receiving said first control commands from the
3 remote control through a selected one of a wireless optical connection in
4 accordance with a wireless optical communication protocol, a wireless electro-
5 magnetic connection in accordance with a wireless communication protocol and a
6 wired electrical connection in accordance with a wired communication protocol.

1 9. The method of claim 1, wherein said first control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 controllee electronic apparatus, and said plurality of operation characteristics
4 comprise selected ones of power on/off, channel selections, audio volume, picture
5 brightness, and picture color.

1 10. The method of claim 1, wherein said method further comprises providing
2 said remote control with a second collection of user interface displays for
3 controlling an auxiliary controllee electronic device coupled to said controllee
4 electronic apparatus.

1 11. The method of claim 10, wherein said providing to the remote control with a
2 second collection of user interface displays for controlling the auxiliary controllee
3 electronic device comprises providing the remote control with a second collection
4 of user interface displays having a plurality of display states and associated
5 display state transition rules.

1 12. The method of claim 10, wherein said providing to the remote control with a
2 second collection of user interface displays for controlling the auxiliary controlllee
3 electronic device comprises providing the remote control with a second collection
4 of user interface displays having a plurality of display cells.

1 13. The method of claim 10, wherein said providing to the remote control with a
2 second collection of user interface displays for controlling the auxiliary controlllee
3 electronic device comprises providing the remote control with the second
4 collection of user interface displays through a selected one of a wireless optical
5 connection in accordance with a wireless optical communication protocol, a
6 wireless electro-magnetic connection in accordance with a wireless communication
7 protocol, and a wired electrical connection in accordance with a wired
8 communication protocol.

1 14. The method of claim 10, wherein said method further comprises
2 receiving from said auxiliary controlllee electronic device specifications of
3 the substantive contents of said second collection of user interface displays; and
4 generating said second collection of user interface displays in accordance with
5 said received specifications.

1 15. The method of claim 14, wherein said receiving of specifications of the
2 substantive contents of said second collection of user interface displays comprises

3 receiving from said auxiliary controllee electronic device an XML based
4 specification.

1 16. The method of claim 14, wherein said receiving of specifications of the
2 substantive contents of said second collection of user interface displays comprises
3 receiving the specifications of the substantive contents of said second collection of
4 user interface displays from the auxiliary controllee electronic device through a
5 selected one of a wireless optical connection in accordance with a wireless optical
6 communication protocol, a wireless electro-magnetic connection in accordance with
7 a wireless communication protocol, and a wired electrical connection in
8 accordance with a wired communication protocol.

1 17. The method of claim 16, wherein the specifications of the substantive
2 contents of said second collection of user interface displays are received from the
3 auxiliary controllee electronic device through a video connection, using a message
4 based communication protocol embedded within a video protocol.

1 18. The method of claim 10, wherein said method further comprises
2 receiving second control commands from said remote control, resulting
3 from said provided second collection of user interface displays being used by said
4 user of said remote control; and
5 controlling operation of said auxiliary controllee electronic device in accordance
6 with said received second control commands.

1 19. The method of claim 18, wherein said receiving of second control
2 commands from the remote control comprises receiving said second control
3 commands from the remote control through a selected one of a wireless electro-
4 magnetic connection in accordance with a wireless communication protocol, a
5 wireless electro-magnetic connection in accordance with a wireless communication
6 protocol, and a wired electrical connection in accordance with a wired
7 communication protocol.

1 20. The method of claim 18, wherein said controlling of the operation of the
2 auxiliary controlllee electronic device comprises relaying the received second
3 commands to the auxiliary controlllee electronic device.

1 21. The method of claim 20, wherein said relaying of the received second
2 control commands comprises relaying the received second control commands
3 through a selected one of a wireless optical connection in accordance with a
4 wireless optical communication protocol, a wireless electro-magnetic connection in
5 accordance with a wireless communication protocol, and a wired electrical
6 connection in accordance with a wired communication protocol.

1 22. The method of claim 10, wherein said auxiliary controlllee electronic device
2 is a selected one of a videocassette recorder (VCR), a digital versatile disk (DVD)
3 player, a home theatre audio control unit, and a video camera.

1 23. The method of claim 22, wherein said second control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 auxiliary controllee electronic device, and said plurality of operation characteristics
4 comprise selected ones of power on/off, play, fast forward, reverse, pause, stop,
5 audio volume, picture brightness, and picture color.

1 24. The method of claim 1, wherein said controllee electronic apparatus is a
2 TV.

1 25. The method of claim 1, wherein said controllee electronic apparatus is a
2 selected one of a set top box, a DVD player, a VCR .

1 26. In a auxiliary controllee electronic device coupled to a primary controllee
2 electronic device, a method of operation comprising:
3 providing specifications for a collection of user interface displays for
4 controlling the auxiliary controllee electronic device to the primary controllee
5 electronic device for the primary controllee electronic device to generate and
6 provide the collection of user interface displays to a remote control;
7 receiving control commands from said remote control, resulting from said
8 provided collection of user interface displays being used by a user of said remote
9 control; and

10 controlling operation of said auxiliary controllee electronic device in
11 accordance with said received control commands.

1 27. The method of claim 26, wherein said providing of specifications for a
2 collection of user interface displays for controlling the auxiliary controllee electronic
3 device comprises providing specifications for a collection of user interface displays
4 having a plurality of display states and associated display state transition rules.

1 28. The method of claim 26, wherein said providing of specifications for a
2 collection of user interface displays for controlling the auxiliary controllee electronic
3 device comprises providing specifications for a collection of user interface displays
4 having a plurality of display cells.

1 29. The method of claim 26, wherein said providing of specifications for a
2 collection of user interface displays for controlling the auxiliary controllee electronic
3 device comprises providing an XML based specification specifying the substantive
4 contents of the collection of user interface displays.

1 30. The method of claim 26, wherein said providing of specifications of a
2 collection of user interface displays for controlling the auxiliary controllee electronic
3 device comprises providing the specifications of the collection of user interface
4 displays from the auxiliary controllee electronic device to the primary controllee
5 electronic device through a selected one of a wireless optical connection in

6 accordance with a wireless optical communication protocol, a wireless electro-
7 magnetic connection in accordance with a wireless communication protocol, a
8 wired electrical connection in accordance with a wired communication protocol.

1 31. The method of claim 26, wherein the specifications for the collection of user
2 interface displays are provided from the auxiliary contollee electronic device to the
3 primary contollee electronic device through a video connection, using a message
4 based communication protocol embedded within a video protocol.

1 32. The method of claim 26, wherein said receiving of the control commands
2 comprises receiving the control commands directly from the remote control
3 through a selected one of a wireless optical connection in accordance with a
4 wireless optical communication protocol, a wireless electro-magnetic connection in
5 accordance with a wireless communication protocol, and a wired electrical
6 connection in accordance with a wired communication protocol.

1 33. The method of claim 26, wherein said receiving of the control commands
2 comprises receiving the control commands indirectly via said primary contollee
3 electronic device through a selected one of a wireless optical connection in
4 accordance with a wireless optical communication protocol, a wireless electro-
5 magnetic connection in accordance with a wireless communication protocol, and a
6 wired electrical connection in accordance with a wired communication protocol.

1 34. The method of claim 26, wherein said auxiliary controllee electronic device
2 is a selected one of a videocassette recorder (VCR), a digital versatile disk (DVD)
3 player, a home theatre audio control unit, and a video camera.

1 35. The method of claim 34, wherein said control commands comprise control
2 commands for controlling a plurality of operation characteristics of said auxiliary
3 controllee electronic device, and said plurality of operation characteristics
4 comprise selected ones of power on/off, play, fast forward, reverse, pause, stop,
5 audio volume, picture brightness, and picture color.

1 36. The method of claim 26, wherein said primary controllee electronic device is
2 a TV.

1 37. The method of claim 26, wherein said primary controllee electronic device is
2 a selected one of a set top box, a DVD player and VCR player.

1 38. In a remote control , a method of operation comprising:
2 receiving from a primary controllee electronic device a first collection of user
3 interface displays for controlling a primary controllee electronic device;
4 facilitating usage of the first collection of user interface displays by a user to
5 control the primary controllee electronic device; and

6 providing first control commands to the primary controllee electronic device
7 to control the primary controllee electronic device in response to said usage of the
8 first collection of user interface displays.

1 39. The method of claim 38, wherein said receiving of a first collection of user
2 interface displays for controlling the primary controllee electronic device comprises
3 receiving a first collection of user interface displays having a plurality of display
4 states and associated display state transition rules.

1 40. The method of claim 38, wherein said receiving of a first collection of user
2 interface displays for controlling the primary controllee electronic device comprises
3 receiving a first collection of user interface displays having a plurality of display
4 cells.

1 41. The method of claim 38, wherein said receiving of the first collection of user
2 interface displays for controlling the primary controllee electronic device comprises
3 receiving the first collection of user interface displays to control the primary
4 controllee electronic device through a selected one of a wireless optical
5 connection in accordance with a wireless optical communication protocol, a
6 wireless electro-magnetic connection in accordance with a wireless communication
7 protocol, a wired electrical connection in accordance with a wired communication
8 protocol.

1 42. The method of claim 38, wherein said providing of the first control
2 commands comprises providing the first control commands to the primary
3 controllee electronic device through a selected one of a wireless optical
4 connection in accordance with a wireless optical communication protocol, a
5 wireless electro-magnetic connection in accordance with a wireless communication
6 protocol, a wired electrical connection in accordance with a wired communication
7 protocol.

1 43. The method of claim 38, wherein said first control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 primary controllee electronic device, and said plurality of operation characteristics
4 comprise selected ones of power on/off, channel selections, audio volume, picture
5 brightness, and picture color.

1 44. The method of claim 38, wherein the method further comprises
2 receiving a second collection of user interface displays from the primary
3 controllee electronic device for controlling an auxiliary controllee electronic device
4 coupled to the primary controllee electronic device;
5 facilitating usage of the second collection of user interface displays by a
6 user to remotely control the auxiliary controllee electronic device; and
7 providing second control commands either directly or indirectly to the
8 auxiliary controllee electronic device to control the auxiliary controllee electronic

9 device in response to said usage of the second collection of user interface
10 displays.

1 45. The method of claim 44, wherein said providing of a second collection of
2 user interface displays for controlling the auxiliary contollee electronic device
3 comprises providing a second collection of user interface displays having a
4 plurality of display states and associated display state transition rules.

1 46. The method of claim 44, wherein said providing of a second collection of
2 user interface displays for controlling the auxiliary contollee electronic device
3 comprises providing a second collection of user interface displays having a
4 plurality of display cells.

1 47. The method of claim 44, wherein said providing of the second collection of
2 user interface displays for controlling the auxiliary contollee electronic device
3 comprises providing the second collection of user interface displays from the
4 primary contollee electronic device to the remote control through a selected one
5 of a wireless optical connection in accordance with a wireless optical
6 communication protocol, a wireless eletro-magnetic connection in accordance with
7 a wireless communication protocol, a wired electrical connection in accordance
8 with a wired communication protocol.

1 48. The method of claim 44, wherein said providing of the second control
2 commands comprises providing the second control commands through a selected
3 one of a wireless optical connection in accordance with a wireless optical
4 communication protocol, a wireless electro-magnetic connection in accordance with
5 a wireless communication protocol, and a wired electrical connection in
6 accordance with a wired communication protocol.

1 49. The method of claim 44, wherein said auxiliary controllee electronic device
2 is a selected one of a videocassette recorder (VCR), a digital versatile disk (DVD)
3 player, a home theatre audio control unit, and a video camera.

1 50. The method of claim 49, wherein said second control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 auxiliary controllee electronic device, and said plurality of operation characteristics
4 comprise selected ones of power on/off, play, fast forward, reverse, pause, stop,
5 audio volume, picture brightness, and picture color.

1 51. The method of claim 38, wherein said primary controllee electronic device is
2 a TV.

1 52. The method of claim 38, wherein said primary controllee electronic device is
2 a selected one of a set top box, a DVD player and a VCR player.

1 53. A contolle electronic apparatus comprising:
2 first means to provide a remote control with a first collection of user
3 interface displays for controlling the controllee electronic apparatus, and to receive
4 first control commands from said remote control, resulting from said provided first
5 collection of user interface displays being used by a user of said remote control;
6 and
7 second means to control operation of said controllee electronic apparatus in
8 accordance with said received first control commands.

1 54. The apparatus of claim 53, wherein said first means provides the remote
2 control with a first collection of user interface displays having a plurality of display
3 states and associated display state transition rules.

1 55. The apparatus of claim 53, wherein said first means provides the remote
2 control with a first collection of user interface displays having a plurality of display
3 cells.

1 56. The apparatus of claim 53, wherein said first means provides the remote
2 control with the first collection of user interface displays through a selected one of
3 a wireless optical connection in accordance with a wireless optical communication
4 protocol, a wireless eletro-magnetic connection in accordance with a wireless
5 communication protocol, and a wired electrical connection in accordance with a
6 wired communication protocol.

1 57. The apparatus of claim 56, wherein said first means provides the remote
2 control with the first collection of user interface displays through an infrared based
3 optical connection, using an IrDA standard based wireless optical communication
4 protocol.

1 58. The apparatus of claim 56, wherein said first means provides the remote
2 control with the first collection of user interface displays through a wireless eletro-
3 magnetic communication connection, using a selected one of a Bluetooth and an
4 IEEE 802.11 standard based wireless communication protocol.

1 59. The apparatus of claim 56, wherein said first means provides the remote
2 control with the first collection of user interface displays through a wired electrical
3 connection that is a selected one of a serial connection, a parallel connection, a
4 USB connection, and a IEEE 1394 based connection, using a message based
5 communication protocol.

1 60. The apparatus of claim 53, wherein said first means receives said first
2 control commands from the remote control through a selected one of a wireless
3 optical connection in accordance with a wireless optical communication protocol, a
4 wireless eletro-magnetic connection in accordance with a wireless communication
5 protocol and a wired electrical connection in accordance with a wired
6 communication protocol.

1 61. The apparatus of claim 53, wherein said first control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 controllee electronic apparatus, and said plurality of operation characteristics
4 comprise selected ones of power on/off, channel selections, audio volume, picture
5 brightness, and picture color.

1 62. The apparatus of claim 53, wherein said first means further provides said
2 remote control with a second collection of user interface displays for controlling an
3 auxiliary controllee electronic device coupled to said controllee electronic
4 apparatus.

1 63. The apparatus of claim 52, wherein said first means provides the remote
2 control with a second collection of user interface displays having a plurality of
3 display states and associated display state transition rules.

1 64. The apparatus of claim 62, wherein said first means provides the remote
2 control with a second collection of user interface displays having a plurality of
3 display cells.

1 65. The apparatus of claim 62, wherein said first means provides the remote
2 control with the second collection of user interface displays through a selected one
3 of a wireless optical connection in accordance with a wireless optical

4 communication protocol, a wireless electro-magnetic connection in accordance with
5 a wireless communication protocol, and a wired electrical connection in
6 accordance with a wired communication protocol.

1 66. The apparatus of claim 62, further comprising
2 third means to receive from said auxiliary contollee electronic device
3 specifications of the substantive contents of said second collection of user
4 interface displays; and
5 fourth means to generate said second collection of user interface displays
6 in accordance with said received specifications.

1 67. The apparatus of claim 66, wherein said third means receives from said
2 auxiliary contollee electronic device an XML based specification.

1 68. The apparatus of claim 66, wherein said third means receives the
2 specifications from the auxiliary contollee electronic device through a selected
3 one of a wireless optical connection in accordance with a wireless optical
4 communication protocol, a wireless electro-magnetic connection in accordance with
5 a wireless communication protocol, and a wired electrical connection in
6 accordance with a wired communication protocol.

1 69. The apparatus of claim 68, wherein said third means receives the
2 specifications from the auxiliary contollee electronic device through a video

3 connection, using a message based communication protocol embedded within a
4 video protocol.

1 70. The apparatus of claim 62, wherein
2 said first means further receives second control commands from said
3 remote control, resulting from said provided second collection of user interface
4 displays being used by said user of said remote control; and
5 said second and third means further cooperate to control operation of said
6 auxiliary contollee electronic device in accordance with said received second
7 control commands.

1 71. The apparatus of claim 70, wherein said third means receives said second
2 control commands from the remote control through a selected one of a wireless
3 eletro-magnetic connection in accordance with a wireless communication protocol,
4 a wireless eletro-magnetic connection in accordance with a wireless
5 communication protocol, and a wired electrical connection in accordance with a
6 wired communication protocol.

1 72. The apparatus of claim 70, wherein said second and third means cooperate
2 to relay the received second commands to the auxiliary contollee electronic
3 device.

1 73. The apparatus of claim 72, wherein said second and third means cooperate
2 to relay the received second control commands through a selected one of a
3 wireless optical connection in accordance with a wireless optical communication
4 protocol, a wireless electro-magnetic connection in accordance with a wireless
5 communication protocol, and a wired electrical connection in accordance with a
6 wired communication protocol.

1 74. The apparatus of claim 62, wherein said auxiliary contollee electronic
2 device is a selected one of a videocassette recorder (VCR), a digital versatile disk
3 (DVD) player, a home theatre audio control unit, and a video camera.

1 75. The apparatus of claim 74, wherein said second control commands
2 comprise control commands for controlling a plurality of operation characteristics
3 of said auxiliary contollee electronic device, and said plurality of operation
4 characteristics comprise selected ones of power on/off, play, fast forward, reverse,
5 pause, stop, audio volume, picture brightness, and picture color.

1 76. The apparatus of claim 53, wherein said contollee electronic apparatus is a
2 TV.

1 77. The apparatus of claim 53, wherein said contollee electronic apparatus is a
2 selected one of a set top box, a DVD player, a VCR .

1 78. An auxiliary contollee apparatus comprising:
2 first means to provide specifications for a collection of user interface
3 displays for controlling the auxiliary contollee electronic device to a primary
4 contollee electronic device for the primary contollee electronic device to generate
5 and provide the collection of user interface displays to a remote control;
6 second means to receive control commands from said remote control,
7 resulting from said provided collection of user interface displays being used by a
8 user of said remote control; and
9 third means to control operation of said auxiliary contollee electronic device
10 in accordance with said received control commands.

1 79. The apparatus of claim 78, wherein said first means provides to said
2 primary contollee electronic apparatus, specifications for a collection of user
3 interface displays having a plurality of display states and associated display state
4 transition rules.

1 80. The apparatus of claim 78, wherein said first means provides to said
2 primary contollee apparatus, specifications for a collection of user interface
3 displays having a plurality of display cells.

1 81. The apparatus of claim 78, wherein said first means provides to said
2 primary contollee electronic apparatus, an XML based specification specifying the
3 substantive contents of the collection of user interface displays.

1 82. The apparatus of claim 78, wherein said first means provides the
2 specifications of its collection of user interface displays to the primary controllee
3 electronic device through a selected one of a wireless optical connection in
4 accordance with a wireless optical communication protocol, a wireless electro-
5 magnetic connection in accordance with a wireless communication protocol, a
6 wired electrical connection in accordance with a wired communication protocol.

1 83. The apparatus of claim 78, wherein said first means provides the
2 specifications for its collection of user interface displays to the primary controllee
3 electronic device through a video connection, using a message based
4 communication protocol embedded within a video protocol.

1 84. The apparatus of claim 78, wherein said second means receives the control
2 commands directly from the remote control through a selected one of a wireless
3 optical connection in accordance with a wireless optical communication protocol, a
4 wireless electro-magnetic connection in accordance with a wireless communication
5 protocol, and a wired electrical connection in accordance with a wired
6 communication protocol.

1 85. The apparatus of claim 78, wherein said second means receives the control
2 commands indirectly via said primary controllee electronic device through a
3 selected one of a wireless optical connection in accordance with a wireless optical

4 communication protocol, a wireless electro-magnetic connection in accordance with
5 a wireless communication protocol, and a wired electrical connection in
6 accordance with a wired communication protocol.

1 86. The apparatus of claim 78, wherein said apparatus is a selected one of a
2 videocassette recorder (VCR), a digital versatile disk (DVD) player, a home theatre
3 audio control unit, and a video camera.

1 87. The apparatus of claim 86, wherein said control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 auxiliary controllee electronic apparatus, and said plurality of operation
4 characteristics comprise selected ones of power on/off, play, fast forward, reverse,
5 pause, stop, audio volume, picture brightness, and picture color.

1 88. The apparatus of claim 78, wherein said primary controllee electronic
2 device is a TV.

1 89. The apparatus of claim 78, wherein said primary controllee electronic
2 device is a selected one of a set top box, a DVD player and VCR player.

1 90. A field extendable remote control apparatus comprising:
2 first means to receive from a primary controllee electronic device a first
3 collection of user interface displays for controlling a primary controllee electronic
4 device;
5 second means to facilitate usage of the first collection of user interface
6 displays by a user to control the primary controllee electronic device; and
7 third means to provide first control commands to the primary controllee
8 electronic device to control the primary controllee electronic device in response to
9 said usage of the first collection of user interface displays.

1 91. The apparatus of claim 90, wherein said first means receives from the
2 primary controllee electronic device a first collection of user interface displays
3 having a plurality of display states and associated display state transition rules.

1 92. The apparatus of claim 90, wherein said first means receives from the
2 primary controllee electronic device a first collection of user interface displays
3 having a plurality of display cells.

1 93. The apparatus of claim 90, wherein said first means receives the first
2 collection of user interface displays from the primary controllee electronic device
3 through a selected one of a wireless optical connection in accordance with a
4 wireless optical communication protocol, a wireless electro-magnetic connection in

5 accordance with a wireless communication protocol, a wired electrical connection
6 in accordance with a wired communication protocol.

1 94. The apparatus of claim 90, wherein said third means provides the first
2 control commands to the primary controlllee electronic device through a selected
3 one of a wireless optical connection in accordance with a wireless optical
4 communication protocol, a wireless eletro-magnetic connection in accordance with
5 a wireless communication protocol, a wired electrical connection in accordance
6 with a wired communication protocol.

1 95. The apparatus of claim 90, wherein said first control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 primary controlllee electronic device, and said plurality of operation characteristics
4 comprise selected ones of power on/off, channel selections, audio volume, picture
5 brightness, and picture color.

1 96. The apparatus of claim 90, wherein
2 said first means further receives a second collection of user interface
3 displays from the primary controlllee electronic device for controlling an auxiliary
4 controlllee electronic device coupled to the primary controlllee electronic device;
5 said second means further facilitates usage of the second collection of user
6 interface displays by a user to remotely control the auxiliary controlllee electronic
7 device; and

8 said third means further provides second control commands either directly
9 or indirectly to the auxiliary contollee electronic device to control the auxiliary
10 controllee electronic device in response to said usage of the second collection of
11 user interface displays.

1 97. The apparatus of claim 96, wherein said first means receives from the
2 primary contollee electronic apparatus a second collection of user interface
3 displays having a plurality of display states and associated display state transition
4 rules.

1 98. The apparatus of claim 96, wherein said first means receives from the
2 primary contollee electronic apparatus a second collection of user interface
3 displays having a plurality of display cells.

1 99. The apparatus of claim 96, wherein said first means receives said second
2 collection of user interface displays from the primary contollee electronic device
3 through a selected one of a wireless optical connection in accordance with a
4 wireless optical communication protocol, a wireless eletro-magnetic connection in
5 accordance with a wireless communication protocol, a wired electrical connection
6 in accordance with a wired communication protocol.

1 100. The apparatus of claim 96, wherein said third means provides the second
2 control commands through a selected one of a wireless optical connection in

3 accordance with a wireless optical communication protocol, a wireless electro-
4 magnetic connection in accordance with a wireless communication protocol, and a
5 wired electrical connection in accordance with a wired communication protocol.

1 101. The apparatus of claim 96, wherein said auxiliary controllee electronic
2 device is a selected one of a videocassette recorder (VCR), a digital versatile disk
3 (DVD) player, a home theatre audio control unit, and a video camera.

1 102. The method of claim 101, wherein said second control commands comprise
2 control commands for controlling a plurality of operation characteristics of said
3 auxiliary controllee electronic device, and said plurality of operation characteristics
4 comprise selected ones of power on/off, play, fast forward, reverse, pause, stop,
5 audio volume, picture brightness, and picture color.

1 103. The apparatus of claim 90, wherein said primary controllee electronic
2 device is a TV.

1 104. The apparatus of claim 90, wherein said primary controllee electronic
2 device is a selected one of a set top box, a DVD player and a VCR player.